Transitional Care in the Patient-Centered Medical Home: Lessons in Adaptation

Karen B. Hirschman, Elizabeth Shaid, M. Brian Bixby, David J. Badolato, Ronald Barg, Mary Beth Byrnes, Richard Byrnes, Deborah Streletz, Jean Stretton, Mary D. Naylor

Abstract: Older adults with multiple chronic conditions (MCCs) typically have risk factors (e.g., functional deficits, social barriers) that complicate the management of their healthcare, often with devastating human and economic consequences. Finding new ways to provide patient-centered care to community-based older adults with MCCs is essential. Two current models of care, the Patient-Centered Medical Home (PCMH) and the Transitional Care Model (TCM), have demonstrated improvements in the outcomes of high-risk older adults at different points on the chronic illness trajectory. However, neither care management approach has optimally engaged vulnerable patients to address needs throughout both acute and more stable transitions in health. In this article, we summarize the development of the PCMH plus TCM (hereafter, PCMH + TCM), an innovative approach to care, and the experience of the providers involved in testing the feasibility of implementing the PCMH + TCM. Using content analyses to code open-ended survey responses from transitional care nurses and PCMH clinical leaders', two major themes, collaboration and communication, emerged as critical to the process of implementing the PCMH + TCM. Barriers and facilitators to implementing the PCMH + TCM are presented. Findings support that the TCM can be adapted and integrated into the PCMH with meticulous planning and implementation.

Keywords
transitions
patient-centered care
patient engagement
advanced practice nurse

Introduction

More than 20 million Medicare beneficiaries have two or more chronic conditions with 37% of Medicare beneficiaries having four or more chronic conditions (Centers for Medicare and Medicaid Services, 2012). The most common conditions—hypertension, hyperlipidemia, heart disease, arthritis, and diabetes—all require continuous monitoring and management of symptoms (Centers for Medicare and Medicaid Services, 2012). This population of older adults with multiple chronic conditions (MCCs) often has other risk factors (e.g., functional deficits, social barriers) that complicate the management of their healthcare (Anderson, 2010). Unfortunately, findings from multiple studies indicate that the healthcare needs of older adults coping with MCCs are poorly managed, often with devastating human and economic consequences (Arora et al., 2009; Krumholz, 2013; Vogeli et al., 2007). Care delivery approaches that target improving the key features of the "Triple Aim"—patient experience, population health, and costs—are needed (Berwick et al., 2008; Institute for Healthcare Improvement, 2012).

Two approaches to care, the Patient-Centered Medical Home (PCMH) and the Transitional Care Model (TCM), have demonstrated improvements in the outcomes of older adults at different points on the chronic illness trajectory (Jackson et al., 2013; Naylor et al., 1994, 1999, 2004, 2014; Peikes et al., 2012). However, these reported studies of the PCMH and, until recently, the TCM have been limited to comparisons with standard care (Jackson et al., 2013; Naylor et al., 1994, 1999, 2004, 2014; Peikes et al., 2012). Neither care approach optimally engaged vulnerable older patients to address needs throughout both acute and more stable transitions in health.

Patient-Centered Medical Home

The PCMH, a team-based model of care delivery, seeks to improve the experience of a patient in the U.S. healthcare system through efforts aimed at improving access and coordination of services, which in turn improves the patient's health status and their overall satisfaction with care (Jackson et al., 2013; Stange et al., 2010) (Table 1).

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Table 1. Comparison of Core Components of Each Model: PCMH and TCM

Intervention	PCMH	TCM
Setting	Community	Hospital to home
Length	From initial enrollment in the PCMH until death or voluntary decision to leave the practice	Within 24 hr of hospital admission to an average of 2 months after initial hospital discharge
Nature of intervention	Longitudinal care coordination using evidence-based disease management, patient education, and risk factor modification interventions to improve outcomes. Does not generally include active involvement with patients during emergency department visits, hospitalizations, or the immediate post-discharge phase of acute illnesses	Care managed throughout acute episode of illness; patients' health goals identified; streamlined plan of care developed; patients and caregivers prepared to implement plan
Method	Active engagement of patients, other health team members, and community services	Active engagement of patients, their caregivers, all patients' physicians (including primary care physician), other health team members, and community services
Staffing (Primary)	Primary care manager often is RN (AD or bachelor's prepared) but may be health coach (health professional, medical technician, peer) or diabetes educator (registered dietician) who has advanced training in care management of this population	Team model with advanced practice TCN as primary care coordinator (TCN is a master's prepared RN with advanced knowledge and skills with this population)
Orientation and quality monitoring	Orientation and ongoing in-service training, supervision, and may have a system for performance assessment	Web-based training modules plus an average of 1-month individualized orientation; "Ongoing quality monitoring" through real-time performance feedback and clinical case conferences
Essential elements		
Patient-centered	Person-centered approach that makes the patients' concerns the priority. Long-term relationship built with the patient. Care focus = patient's values, goals, and total health	Comprehensive holistic focus on each patient's goals and needs including the reason for the primary hospitalization and other coexisting health problems and risks
Assessment	Multidimensional assessment typically conducted in primary care practice	In-hospital assessment within 24 hours of enrollment targeting "root causes" of poor outcomes
Patient: nurse contact	Type (generally office visits, telephone outreach, or availability) and timing varies according to	Daily hospital visits; routine home visits (within 24 hr of discharge, at least weekly in first month and biweekly in

(*Continued*)

Table 1. (*Continued*)

Intervention	PCMH	TCM
	practice; occasionally may include hospital or home visit; varies according to needs of patients and practice	months 2 and 3); telephone support (available 7 days/week); TCN substitutes for traditional visiting nurse services
Provider interaction	Care manager uses collaborative problem solving approach with the patient and primary care physician and/or nurse practitioners and other practice members to address chronic and acute medical needs; often guided by protocols	Continuity of care between hospital, skilled nursing facility, and primary care providers facilitated by TCN across episodes of acute care
Risk identification	Emphasis on identifying geriatric and disease-specific risks and variances from clinical guidelines. Also identifying patient deficits with self-care skills, self-monitoring, and knowledge of action plans	Emphasis on patients' and family caregivers' prevention or early identification and response to healthcare risks and symptoms
Patient and family engagement	Patient-centered goals, interventions, and action plans guide patients and sometimes family caregivers for early identification of problems and when and how to contact their care manager or primary care physician	Active engagement of patients and caregivers focusing on meeting their goals
Team approach	Long-term relationship developed with patient, and sometimes family caregivers, and the primary care team to offer trusted and responsive resources	Multidisciplinary including patient, family caregivers, healthcare providers, TCN, and specialists (e.g., pharmacist)
Primary intervention areas	Medication adherence and management, pain, nutrition, activity, fall prevention, family issues, health literacy, weight management, depression, sleep, and finances	Focus on "root cause" of poor outcomes targeting 2–3 priority needs (e.g., patient engagement, health literacy, symptom management, treatment of depression, access to services)

PCMH, patient-centered medical home; TCM, transitional care model; TCN, transitional care nurse.

This longitudinal care coordination model uses an evidence-based disease management approach with a focus on patient education and risk factor modification interventions to improve outcomes in the primary care setting. This care delivery model follows the standards developed by the National Committee for Quality Assurance (NCQA) and is accredited by the Accreditation Association for Ambulatory Health Care. Findings from evaluations of PCMHs targeting adult populations, primarily observed from pre- and post-study designs, suggest that this practice model may be associated with selected practice and outcome improvements (Grumbach and Grundy, 2010; Grumbach et al., 2009; Jackson et al., 2013; Nielsen et al., 2014; Reid et al., 2009).

The Transitional Care Model

The TCM was designed, tested, and refined by a multidisciplinary team of

researchers and clinicians at the University of Pennsylvania (Philadelphia, PA). Transitional care is a set of time-limited services provided during an episode of acute illness between and across settings. The TCM emphasizes identification of patients' health goals, design, and implementation of a streamlined plan of care and continuity of care across settings and between providers throughout episodes of acute illness (e.g., hospital to home) (Naylor, 2004; Naylor et al., 1994, 1999, 2014) (Table 1) The TCM work is guided by a master's prepared advanced practice nurse (Transitional Care Nurse [TCN]) with the active engagement of patients and their family caregivers and in collaboration with patients' physicians and other health team members. Primary findings from 3 reported multisite National Institute of Nursing Research–funded randomized clinical trials have consistently demonstrated the capacity of the TCM to improve acutely ill older adults' experience with care and health and quality of life outcomes while reducing rehospitalizations and total healthcare costs (Naylor et al., 1994, 1999, 2004).

Patient-Centered Medical Home + Transitional Care Model

The goal of adapting the TCM to the PCMH was to extend the PCMH beyond traditional clinical office boundaries to include home care, enhanced telephone follow-up, and visits to other healthcare settings for higher risk patients by a trained TCN partnering with participating PCMHs (Table 2). The combined PCMH + TCM included 4 core elements: (1) coordinated care across an episode of acute illness throughout a variety of settings (e.g., TCN meets with patient/family caregiver in hospital; TCN sees patient in the home within 24 hours of transition; TCN and PCMH provider connect and provide updates, discuss medication changes, hospital course, etc.); (2) active engagement of the patient and/or family caregivers and TCN in development of plan of care; (3) a collaborative partnership between the patient/family caregivers, the TCN and PCMH clinicians; and (4) coordination of education and community services to develop self-management skills. This innovative model stresses prevention of avoidable emergency department visits and hospitalizations and allows for continuous care management of patients across settings of care (e.g., home, hospital, skilled nursing facility, etc.) by a team of clinicians (PCMH and TCN). The PCMH + TCM has the potential to fill system gaps encountered by combining two evidence-based care models for this complex population. Guided by a multidisciplinary team of clinical scholars and health services researchers, the goal of this project was to test the feasibility of implementing this combined care innovation. In this article, we describe the perspectives of the clinicians involved in adapting and implementing the PCMH + TCM. We conclude with a set of recommendations based on lessons learned in integrating this care model in "real-world" clinical practice settings for a population of older adults with MCCs.

Methods

Overview

Survey data from each PCMH and the TCNs on their experience adapting the PCMH and TCM are presented here.

Site Collaboration

Five NCQA-designated PCMHs in Southeastern Pennsylvania volunteered to participate in the design and testing of the PCMH + TCM. Each PCMH had a lead collaborator with whom the TCNs and research team partnered. All 5 PCMH sites were affiliated with either community hospitals or with academic health centers in one of three counties in Southeastern Pennsylvania. The PCMHs were familiar with a range of post-acute skilled nursing facilities and home care and/or hospice agencies in their specific areas. Sites ranged in size from serving ~2,100 patients with one physician and one advanced practice nurse to >14,000 patients and >10 physicians and

Table 2. Key PCMH + TCM Features

Feature	PCMH + TCM Examples
Length	Average of 2 months after initial enrollment; actual length collaboratively agreed upon time between PCP and TCN
Nature of intervention	Care management using combination of evidence-based patient/family caregiver health goal setting, individualized simplified plans of care to manage multiple MCCs, patient/family caregiver preparation to continue to implement plan following transition from intervention
Method	Active engagement of patients, family caregivers, other health team members, and community services
Staffing (primary)	Team model with TCNs collaborating with PCPs to comanage group of high-risk patients
Orientation and performance monitoring and improvement	PCMH site visits from project team to introduce all staff to the refined intervention. In addition to orientation to PCMH and affiliated health settings, TCNs completed web-based training modules plus an average of 1-month individualized orientation; ongoing quality monitoring and opportunities for continuous learning through real-time performance feedback and clinical case conferences
Essential elements	
Patient-centered	Person-centered holistic approach centered on patient's goals and needs
Assessment	Multidimensional assessment at enrollment with continual reassessment focused on "root causes" of poor outcomes. TCN and PCP review assessment findings with patients and family caregivers and then work as a team to design and implement plan of care, adjusting based on changing patient needs and goals design and implement plan of care
Patient: TCN contact	TCNs visit patients in their homes least weekly in first month of service and biweekly in months 2 and 3; telephone support (available 7 days/week). If hospitalized, TCNs visit daily and substitutes for traditional home health nurse services (if required). TCNs join PCPs in visits with patients at PCMH offices. Continuity of care is emphasized through use of same TCN throughout entire intervention
Provider interaction	PCPs and TCNs collaborate to support the patient and family caregiver via joint visits, telephonic or e-mail contact, and shared documentation in the EHR
Risk identification	Emphasis on patients' and family caregivers' prevention or early identification and response to healthcare risks and symptoms
Patient and family engagement	Patient- and family-centered goals (continually reassessed) guide clinical decision making
Team approach	Includes patient, family caregivers, PCPs, TCNs, and other health team members
Primary intervention areas	Focus on "root cause" of poor outcomes targeting two to three priority needs (e.g., patient engagement, health literacy, symptom management, treatment of depression, access to services)

EHR, electronic health record; MCCs, multiple chronic conditions; PCMH, patient-centered medical home; PCP, primary care physician; TCM, transitional care model; TCN, transitional care nurse.

up to two advanced practice nurses (during the testing of the PCMH + TCM).

Preparation of PCMHs and Integration of the TCM

Staff members at each PCMH were oriented to the TCM and participated in the development of a set of criteria to identify high-risk patients who would benefit from this care model. Patients at each PCMH site were eligible to be part of the collaborative intervention if they were aged 65 years or older, English speaking, reachable by telephone, had a documented history of primary cardiovascular, respiratory, endocrine, or orthopedic health problem. In addition, patients had to meet at least one of the following criteria: history of mental/emotional illness (e.g., anxiety, depression) for which the patient was currently being treated, one or more hospitalizations in the past 30 days, two or more hospitalizations in the past six months, or a new chronic diagnosis or an exacerbation of an existing chronic condition that resulted in multiple telephone or in-person contacts with the PCMH in the past 30 days by the patient or family caregiver.

The TCN met with PCMH staff to discuss the referral of patients, communication patterns, goal setting, and care planning. As patient goals changed with time, the TCN reviewed cases with the PCMH clinicians to evaluate patient progress and modify the care plan as needed.

Data Collection and Analyses

Surveys were developed to explore the experience of the PCMH clinicians and TCNs in implementing the combined model. Clinical leaders (two to four people) at each PCMH site received a guided open-ended set of questions focused on the processes of screening for patient eligibility, enrollment, implementing the intervention, assessing impact, and overall assessment of the quality of this experience. Clinical leaders were asked to discuss the questions with all members of their staff who were involved in the PCMH + TCM and respond collectively in one survey document. Sample questions included: "Were risk criteria appropriate? Were the goals identified through the collaboration between the practice and the TCN addressed with the patient? Could you suggest ways to improve this intervention?" Similarly, TCNs were asked to "Describe the experience in adapting the TCM to the PCMH setting for each site" and to provide an overall summary of the experience working with each PCMH. Site surveys were e-mailed to the primary PCMH site collaborators after the last patient completed participation in the PCMH + TCM pilot. Similarly, the two TCNs were asked to summarize the same dimensions of their experiences in writing after all patients at each site had completed the intervention.

Guided by a content analysis framework, two research team members read the PCMH responses to the survey and the TCN summaries using an open coding technique. This process of coding the patterns and potential themes to assess the implementation of the combined PCMH + TCM intervention within PCMHs involved grouping pieces of text related to themes and subthemes by one team member and confirmed through redundant coding by a second team member (Hsieh and Shannon, 2005; Silverman and Marvasti, 2008). All codes were reviewed and organized into two overarching themes: collaboration and communication. These themes were further organized into facilitators and barriers to adapting the PCMH and TCM models (Bradway et al., 2012; Naylor et al., 2009).

Results

Between March 2012 and November 2013, two TCNs worked collaboratively with five PCMHs to care for 54 patients and, when appropriate, their family caregivers. Two main themes, collaboration and communication, emerged from the surveys with site clinical leaders and TCNs (Table 3). These themes are described below.

Table 3. Patient-Centered Medical Home Providers and TCNs Perspectives' on Combining the Interventions

Facilitators	Barriers
Collaboration	
Familiarity with transitional care	Limited experience
Experience	System barriers
Accessibility	Area skilled nursing facilities/ rehabilitation centers unwilling to collaborate with TCN
Space for TCN at PCMH	
Area skilled nursing facilities/ rehabilitation centers knowledgeable and aware of transitional care	
Communication and documentation	
Referrals with detailed background documentation	System barriers
Prompt communication between PCMH and TCN	Limited or no access for TCN to the EHR
Use of practice EHR for communication/documentation	PCMH
Remote EHR access	Local hospitals affiliated with PCMH

EHR, electronic health record; PCMH, patient centered medical home; PCP, primary care physician; TCM, transitional care model; TCN, transitional care nurse.

Collaboration

Both PCMH clinicians and TCNs reported that all involved in the patients' care planning and implementation, including staff at the PCMH sites, needed to fully understand the goal of adding the TCM to the PCMH model for the collaboration to be effective. Having all staff "on board" was described as an essential element to allowing the TCN to become an engaged member of the PCMH practice team. One TCN reported, "Due to the small number enrolled at most of the (PCMH sites), it was difficult to really become a part of the practice. This relationship takes time and we were finished enrollment when this relationship was really developed." "Experience" collaborating between types of PMCH physicians and advanced practice nurses (TCNs) was reported as essential in the smooth adaptation of the models. Both PCMH respondents and TCNs indicated that collaborative office visits with patients and caregivers were important to the establishment of trust both in their working relationship with each other and with the patients and caregivers. Several PCMH respondents pointed out specific topic areas in which the TCN collaboration and partnership with the patient and family caregiver was particularly helpful, including having goal discussions. For example, a clinical leader at one PCMH site reported, "[The TCN] and patient developed goals and presented back to practice . . . which worked well. [The] goals were modified per plan of care . . . [, which] added more detail and concrete incremental steps for achieving." TCNs reported having "touchdown" space at the PCMHs where they could work and meet with patients was "helpful."

Communication

Communication between PCMH respondents and TCNs from the initial

screening for eligibility through day-to-day work with patients was a second major theme reported by both PCMH respondents and TCNs. Communication was perceived by the PCMH clinicians as both a major facilitator and barrier. One PCMH clinician noted, "I felt that I always knew what had happened at the home visits and the telephone follow-up. I thought it was especially helpful when the TCN came into the office for the follow-up office visits with the physician."

"Prompt communication" of detailed eligibility and patient history information, "responsiveness" (e.g., "by the next day" = 24 hours) to contacts from the PCMH clinician to TCN or TCN to PCMH clinician, and "documentation" in the electronic health record (EHR) were reported as essential factors in combining of the two interventions. According to the PCMH clinical leaders at one site, prompt and responsive communication, including the use of the EHR by the TCNs varied, "[One TCN] used our practice's EHR for regular communication, which was extremely beneficial. [Another TCN] did not [due to access issues], so I rarely knew what [the TCN] was doing and didn't have a quick/secure way to notify [the TCN] of changes." Among the TCNs, one stated that ". . . very prompt response to questions and concerns . . ." was a facilitator in communication with the PCMH clinicians.

Documentation in the EHR, a fundamental requirement for certain PCMH certification levels, was described as both the key component to effective communication by the PCMH clinicians and TCNs as well as an area with problems. Some of the healthcare systems affiliated with the PCMHs were not willing to provide EHR access to the TCNs because these nurses were not employees of the health system. In the sites without EHR access, an alternative method (e.g., secure e-mail and telephone calls) was used to communicate. However, some PCMH respondents and TCNs reported that this was not an "optimal" form of communication. For example, one PCMH respondent reported, "We could not communicate through the EHR due to institutional barriers. We did appreciate the emailed progress notes and phone calls as needed . . ." At some of the PCMH affiliated hospitals, the TCNs were credentialed to have limited access to the EHR. Another PCMH respondent reported, "We feel that it would have been ideal if the TCN had [full] access to the patient chart during the patient's hospitalization but understand the complexity of pursuing staff privileges . . .." The TCNs reported that having to learn how to use five to six different EHR systems to review and document their work with the patient/family, PCMH clinicians, and other healthcare providers (e.g., hospitalists, specialists, etc.) was a challenge. Overall, with the TCNs primarily seeing patients at the hospital or in their home, often at a distance greater than the 30 mile radius from the PCMH, having limited EHR access for communication was a barrier.

Lessons Learned

Several key lessons were learned during the design and testing of the implementation of the PCMH + TCM that can assist other PCMHs interested in deploying a similar program. First, critical elements to the success of the PCMH + TCM are strong communication and collaboration between patients/family caregivers, the TCN and the PCMH healthcare team (e.g., physicians, TCNs, nurses, office staff, etc.), and a partnership guided by patients' goals and their plans of care. Orientation of all staff, from the office staff at the PCMH to the clinicians to the patients and their families, about the care delivery intervention contributing to this partnership, including the roles and responsibilities of the PCMH clinicians and TCNs, needs to be consistent and continuous. Based on this experience, we highly recommend that the TCN "shadow" clinicians at the PCMH practice for a period of time to allow for both the establishment of relationships between clinicians involved in the PMCH + TCM but also for the development of familiarity with the role of the TCN. Once the criteria for the PCMH + TCM program are determined, identifying a contact person within the practice will assist in establishing the referral process and allow for clear communication of eligibility

criteria and detailed background information on referrals.

Second, the need for consistent ongoing communication between providers is essential. Although the amount, type, and frequency of "communication" between PMCH clinicians and TCNs varied in our experience, one lesson learned is that early discussion of communication preferences and expectations should be established. In the Policies and Procedures Guidelines for NCQA's Patient-Centered Medical Home 2011, both patient information and clinical data are required to be collected in an electronic system (NCQA, 2011). The guidelines specify that this information be maintained in a system that can allow for search and report of specific information. Using an EHR, all members of the team have access to current patient information and can communicate with one another quickly and efficiently. Having the ability to communicate between the PCMH clinicians and TCN using the EHR was not always feasible. When EHR access was available, all parties communicated frequently on a daily basis through the EHR remotely because the TCN was often visiting the patient in their own home. When EHR access was not available or had limited availability, the TCN and PCMH clinicians had to use secure e-mail and telephone calls for communication. This sometimes hindered "prompt" and "responsive" communication. Having all clinicians using the EHR is essential and remote access is vital to the most successful implementation of the PCMH + TCM; therefore, finding new effective ways to enhance the use of the EHR to optimize time and cost will be important in future research.

Third, affiliated hospitals need to be encouraged to embrace the TCN as part of the process and an extension of the PCMH. In this project, not all hospitals wanted to engage in this partnership. Some hospitals chose to designate the TCN as a friendly visitor rather than a hospital staff member; other hospitals chose to credential the TCN as staff members. Both options allowed the TCN to collaborate with staff for hospitalized PCMH patients being seen by the TCN. For hospitalized PCMH patients, the TCN interaction with discharge planning and the clinical team occurred either in-person or through telephone because there was no EHR access. This increased the time spent and decreased the efficiency required to implement the TCM while the patient was in the hospital. The PCMH + TCM offers one way to extend the continuity of care across an episode of acute illness (from the community to acute care to subacute care and back to the community) for older adults with MCCs. Establishing working relationships and partnerships across settings to provide this type of care is required.

Fourth, identifying the appropriate geographic area of the PCMH + TCM to be implemented is essential. For this project, the distance was a 30-mile radius from the PCMH. The distance between patients who would be eligible to receive the service could be quite large and diverse (e.g., urban, suburban, rural). When the TCNs were assigned patients from multiple practices across multiple counties, the distance between patients became excessive and limited the number of patients who could be seen each day.

Finally, one of the participating PCMH sites adopted PCMH + TCM at their practice but found that they could not sustain the model due to the absence of a funding source. Making funding of such services a priority through innovative payment (e.g., bundled payments) or care delivery (e.g., Accountable Care Organizations [ACOs]) will be essential to scale and spread the model.

Conclusions

Implementing a new service within established practices can be a challenging process. Patient-Centered Medical Homes are fertile ground to promote integration of a new service, as they have already elected to enhance their care delivery model to assure improved care continuity and patient outcomes. Findings suggest that the TCM can be integrated into the PCMH with proper planning. Close attention to the process of collaboration and communication is needed. A shared

understanding of both models by all parties is imperative for successful integration of the TCM with PCMH.

As ACOs continue to grow in number, so too will the use of innovative models of care such as the PCMH. The adaptation of both the PCMH and TCM for patients with MCCs appears feasible and could improve care across all 3 domains of the Triple Aim (Berwick et al., 2008; Institute for Healthcare Improvement, 2012)—improved population health, improved patient experience, and lower costs.

References

Anderson, G. Chronic Care: making the case for ongoing care: Robert Wood Johnson foundation. 2010. Available at: www.rwjf.org/pr/product.jsp?id=50968.

Arora, V., Gangireddy, S., & Mehrotra, A., et al. Ability of hospitalized patients to identify their in-hospital physicians. *Arch Intern Med* 2009;169:199–201.

Berwick, D.M., Nolan, T.W., & Whittington, J. The triple aim: care, health, and cost. *Health Aff (millwood)* 2008;27:759–769.

Bradway, C., Trotta, R., & Bixby, M.B., et al. A qualitative analysis of an advanced practice nurse-directed transitional care model intervention. *Gerontologist* 2012;52:394–407.

Centers for Medicare and Medicaid Services. *Chronic conditions among medicare beneficiaries, Chartbook, 2012 Edition*. Baltimore, MD, 2012.

Grumbach, K., Bodenheimer, T., & Grundy, P. *The outcomes of implementing patient-centered medical home interventions: A review of the evidence on quality, access and costs from recent prospective evaluation studies*. Washington, DC: Patient-Centered Primary Care Collaborative, 2009.

Grumbach, K., & Grundy, P. *Outcomes of implementing patient centered medical Home interventions: A review of the evidence from prospective evaluation studies in the United States*. Washington, DC: Patient-Centered Primary Care Collaborative, 2010.

Hsieh, H.F., & Shannon, S.E. Three approaches to qualitative content analysis. *Qual Health Res* 2005;15:1277–1288.

Institute for Healthcare Improvement. IHI triple aim Initiative. 2012. Available at: www.ihi.org/Engage/Initiatives/TripleAim/pages/default.aspx.

Jackson, G.L., Powers, B.J., & Chatterjee, R., et al. The patient-centered medical HomeA Systematic review. *Ann Intern Med* 2013;158:169–178.

Krumholz, H.M. Post-hospital syndrome–an acquired, transient condition of generalized risk. *N Engl J Med* 2013;368:100–102.

Naylor, M., Brooten, D., & Jones, R., et al. Comprehensive discharge planning for the hospitalized elderly. A randomized clinical trial. *Ann Intern Med* 1994;120:999–1006.

Naylor, M.D. Coordinating care between hospital and Home: translating research into practice, Phase I & II: the Commonwealth Fund (#2004-0068) and transitional care model for elders, Jacob and Valeria Langeloth foundation. 2004.

Naylor, M.D., Brooten, D., & Campbell, R., et al. Comprehensive discharge planning and home follow-up of hospitalized elders: a randomized clinical trial. *Jama* 1999;281:613–620.

Naylor, M.D., Brooten, D.A., & Campbell, R.L., et al. Transitional care of older adults hospitalized with heart failure: a randomized, controlled trial. *J Am Geriatr Soc* 2004;52:675–684.

Naylor, M.D., Feldman, P.H., & Keating, S., et al. Translating research into practice: transitional care for older adults. *J Eval Clin Pract* 2009;15:1164–1170.

Naylor, M.D., Hirschman, K.B., & Hanlon, A.L., et al. Comparison of evidence-based interventions on outcomes of hospitalized, cognitively impaired older adults. *J Comp Effectiveness Res* 2014;3:245–257.

NCQA. *Standards and guidelines for NCQA's patient-centered medical home (PCMH)*. Washington, DC: National Committee for Quality Assurance, 2011.

Nielsen, M., Olayiwola, J.N., & Grundy, P., et al. The patient-centered medical home's impact on cost & quality: an annual update of the evidence, 2012–2013. In Fund, MM, ed. Washington, DC: Patient-Centered Primary Care Collaborative, 2014. pp. 37.

Peikes, D., Zutshi, A., & Genevro, J.L., et al. Early evaluations of the medical home: building on a promising start. *Am J Manag Care* 2012;18:105–116.

Reid, R.J., Fishman, P.A., & Yu, O., et al. Patient-centered medical home demonstration: a prospective, quasi-experimental, before and after evaluation. *Am J Manag Care* 2009;15:e71–87.

Silverman, D., & Marvasti, A. *Doing qualitative research*. London: Sage, 2008.

Stange, K.C., Nutting, P.A., & Miller, W.L., et al. Defining and measuring the patient-centered medical home. *J Gen Intern Med* 2010;25:601–612.

Vogeli, C., Shields, A., & Lee, T., et al. Multiple chronic conditions: prevalence, health consequences, and Implications for quality, care management, and costs. *J Gen Intern Med* 2007;22:391–395.

Authors' Biographies

Karen B. Hirschman, PhD, MSW, is a Research Associate Professor at the University of Pennsylvania School of Nursing, Philadelphia, PA. Dr. Hirschman is a member of the NewCourtland Center for Transitions and Health at the University of Pennsylvania School of Nursing, Philadelphia, PA.

Elizabeth Shaid, MSN, RN, is an Advanced Practice Nurse at the University of Pennsylvania School of Nursing, Philadelphia, PA.

M. Brian Bixby, MSN, RN, is an Advanced Practice Nurse at the University of Pennsylvania School of Nursing, Philadelphia, PA.

David J. Badolato, MD, is a family medicine physician and president of Family Practice Associates of Upper Dublin, located in Fort Washington, PA. He is affiliated with Abington Memorial Hospital.

Mary Beth Byrnes, MSN, RN, is a Clinical Nurse Specialist at Richard Byrnes, D.O. Family Medicine, an NCQA certified Level 3 Patient-Centered Medical Home located in Souderton, PA. Ms. Byrnes is a Care Manager for the practice. Ms. Byrnes received her MSN from the University of Pennsylvania School of Nursing, Philadelphia, PA.

Richard Byrnes, DO, runs the Richard Byrnes, D.O. Family Medicine, an NCQA-certified Level 3 Patient-Centered Medical Home located in Souderton, PA. He is the sole physician at the practice and is affiliated with three local community hospitals.

Deborah Streletz, MD, formerly a physician with Bryn Mawr Family Practice and Residency Program in Bryn Mawr, PA, as teaching faculty with an emphasis on transitional care and geriatrics. Dr. Streletz currently works at the University of California Riverside School of Medicine as an Assistant Clinical Professor and as the Associate Program Director of the Family Medicine Residency Program.

Jean Stretton, MD, MBA, is board certified in Internal Medicine. Dr. Stretton is a leader at Gateway Medical Associates, a primary care physician group with multiple locations in Southeastern, PA. Additional expertise includes end-of-life care, information technology, improving communication among healthcare providers, and patient and family education.

Mary D. Naylor, PhD, RN, FAAN, is the Marian S. Ware Professor of Gerontology at the University of Pennsylvania School of Nursing, Philadelphia, PA. Dr. Naylor is the Director of the NewCourtland Center for Transitions and Health at the University of Pennsylvania School of Nursing, Philadelphia, PA.

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For more information on this article, contact Karen B. Hirschman at hirschk@nursing.upenn.edu.

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